

**A REVIEW OF THE GENUS *Kurtomathrips* WITH THE
DESCRIPTION OF A NEW SPECIES**

(THYSANOPTERA: THRIPIDAE)

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Up to this time the genus *Kurtomathrips* Moulton has been monotypic. In 1927, at the time of the description of *K. morrilli*, it was reported injuring cotton in Arizona. On several occasions since it has been collected on cotton in western Arizona. As a result, the writer had thought this wingless thrips was an inhabitant of the arid southwestern United States and was associated with typical desert plants (Bailey, 1957). However, as specimens have accumulated, it is known today from Laredo, Texas, to Monterey County of coastal California and, surprisingly, from tropical Honolulu and Jamaica. Also, collecting has added specimens of a second species. Therefore, it appears timely to present a short review of the genus.

Kurtomathrips* MoultonKurtomathrips* Moulton, 1927, Bull. Brooklyn Ent. Soc. 22(4): 187-188.

Body variously ornamented with sinuate thickenings or ridges. Head much smaller than prothorax. Vertex of head with cleft or emargination forming lobes. Eyes protruding. Ocelli wanting. Cheeks with ridges and indistinct tubercles. Antennae eight-segmented; second segment with two broad curved setae on dorsum arising from tubercles. Sense cones on segments three to five absent. Mouthcone long and pointed. Maxillary palpi long, slender and three-segmented. Labial palpi two-segmented. Setae broad, curved. Wings wanting. Abdomen broad, setae on segments nine and ten slender and pointed. Ovipositor downcurved. Male smaller and without ocelli or wings. Annature or other external sexual differences absent.

Type of the genus: *Kurtomathrips morrilli* Moulton, 1927.

This genus, in general appearance, reminds one of *Prosopothrips* and the wingless *Anaphothrips* species, such as *scticornis* Trybom. *Prosopothrips* lacks the prominent curved setae, having microsetae only on the head and pronotum, and the mouthcone is shorter and rounded. *Anaphothrips scticornis*, for example, has prominent trichomes on the antenna and segment VI exhibits cleavage. Also, the vertex is not emarginate. *Aptinothrips rufus*, form *stylifera*, Trybom can be distinguished from *Kurtomathrips* by the short, rounded mouthcone, normal setae, the prothorax being shorter than the head and abdominal segment X being sharply pointed.

***Kurtomathrips morrilli* Moulton**

Some refinement of the original description is in order since an additional species is described below.

Color of body light brownish yellow, antennal segments VI-VIII brown, I-II, and IV-V yellow to light brown, III light brown with pedicel yellowish white,

abdominal segments I-VIII with a brown spot on each side. Similar spots on thorax. Tips of tarsi brown. Femora and tibia with brown patches near center.

Head slightly wider than long, vertex emarginate with major setae set on tubercles. Four such setae, curved and enlarged at tip, on vertex and two behind them. Four smaller setae between eyes. Ocelli absent. Eyes prominent, not pilose. Checks slightly swollen and rough with one small seta behind each eye laterally. Dorsum slightly reticulate in center. Antennae arise beneath vertex and are eight-segmented. Segment II is swollen dorsally and supports two short curved setae. Remainder of setae are very minute, only one small simple trichome present on inner face near tip of segment VI. Segment III small, constricted in basal third and with slender pedicel. Style two-segmented. Mouthcone long and pointed nearly reaching mesothorax. Maxillary palpi three-segmented, basal segment longest. Labial palpi two-segmented.

Pronotum wider than long, about one-third wider at posterior than anterior. Posterior margin with minute and irregularly spaced teeth. Two curved setae at each posterior outer angle, the outer one longer. Dorsum with irregular thickenings and with several irregular rows of short curved setae arising from small tubercles. Wings absent. Legs short, unarmed.

Abdomen ovate. Segments II-VIII with four large curved setae about equally spaced on dorsum, one such seta mid-lateral and one at each side at outer posterior angle (fig. 5). Posterior margin of segments I-VIII with comb. Irregular thickenings horizontal not forming polygons. Tube short and faintly reticulated dorsally. Setae on segments IX and X slender and pointed (fig. 4). Ovipositor downcurved.

Male much smaller. Without external sexual differences.

The measurements of the holotype, made by Moulton, are as follows: "Total body length .66 mm. Head length .066 mm., width across eyes .087 mm., across at cheeks .075 mm.; prothorax length .105 mm., width at anterior end .075 mm., across posterior end .150 mm. Antenna length (width) segment I, 9 m. (18 m.); II, 27 (24); III, 21 (15); IV, 24 (18); V, 30 (18); VI, 33 (15); VII, 9; VIII, 9; total .165 m." Homotypes we have measured show the average female to be somewhat larger.

The holotype (No. 896) and 3 paratype slides are in the Moulton collection deposited in the California Academy of Sciences, San Francisco. The type locality is Gila Bend, Arizona. All specimens were collected by A. W. Morrill, July 19, 1926, on cotton.

The host plants of *K. morrilli* now include a wide variety of plants: bean, cotton, chrysanthemum, Jimson weed, lantana, *Lotus*, *Malva rotundifolia*, snapdragon, sugar beet, *Wedelia*, and *Wyethia ovata*.

The distribution of the species at present as known to me is as follows: Texas, Nevada, Arizona, central and southern California, Honolulu, Hawaiian Is., and Jamaica, B.W.I.

***Kurtomathrips unicolor* Bailey, new species**

Female.—Body color brown. Antennal segments I-II and VI-VIII dark brown, fore tarsi and tip of tibiae lighter. General appearance broad and somewhat flattened dorso-ventrally. Setae without pigment.

Head, very small, wider than long, vertex deeply emarginate, with curved, stout setae set on protruding tubercles. A row of four such tubercles on vertex with two posteriorly and between eyes (fig. 2). Four smaller setae between eyes posterior to an imaginary horizontal line through center. Ocelli wanting. One short seta behind each eye laterally on cheek. Eyes protruding, not pilose. Cheeks rough. Dorsum of head deeply reticulate in center near posterior margin. Anten-

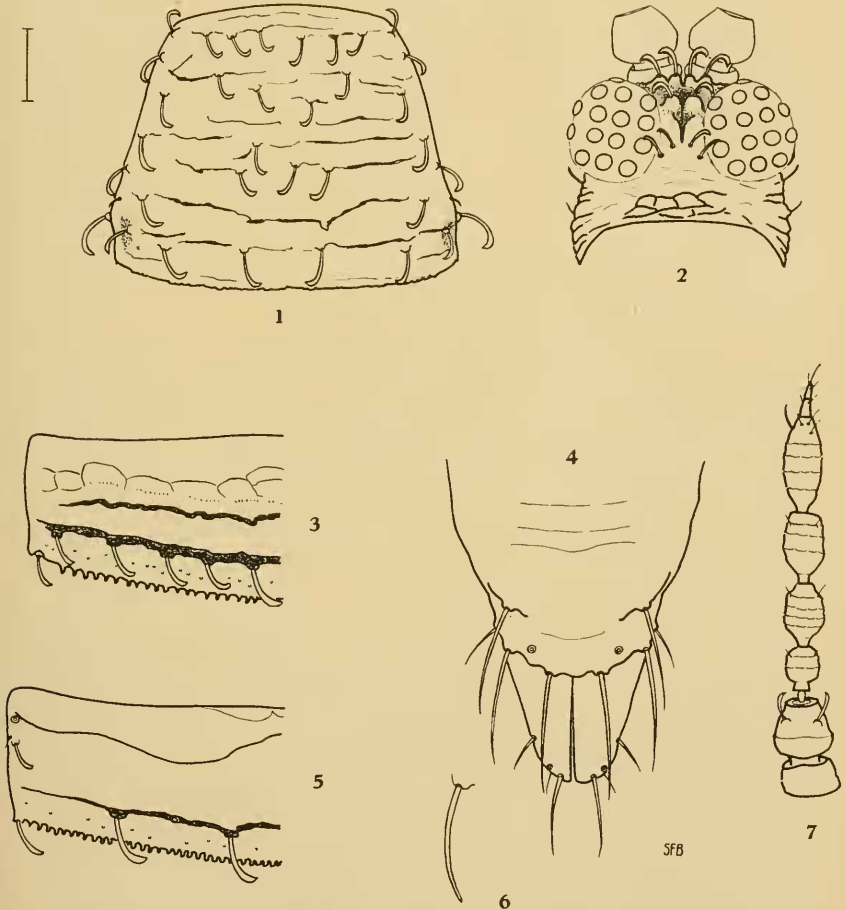


Fig. 1, *Kurtomathrips unicolor* Bailey, new species, dorsum of pronotum; fig. 2, *Kurtomathrips unicolor* Bailey, new species, dorsum of head; fig. 3, *Kurtomathrips unicolor* Bailey, new species, left half of dorsum of abdominal segment VI; fig. 4, *Kurtomathrips morrilli* Moulton, dorsum of abdominal segments IX and X; fig. 5, *Kurtomathrips morrilli* Moulton, left half of dorsum of abdominal segment VI; fig. 6, *Kurtomathrips unicolor* Bailey, new species, major seta on posterior margin of abdominal segment IX; fig. 7, *Kurtomathrips unicolor* Bailey, new species, right antenna. Scale—all figures, line equals 0.032 mm.

nae (fig. 7) arising beneath vertex, eight-segmented. Dorsum of antennal segment II swollen with two short curved setae on dorsum. Segment III constricted in basal third and with slender pedicel. Style two-segmented. All other setae minute. One small simple trichome visible on VI. Mouthcone long and pointed, reaching to posterior margin of pronotum. Maxillary palpi three-segmented. Labial palpi two-segmented.

Pronotum (fig. 1) wider than long, posterior angles bluntly rounded. Posterior margin and lateral margin beneath with minute blunt teeth. One large curved seta on outer margin near posterior and a smaller seta posterior and inward, arising from an indentation. Dorsum with irregular, sinuate, heavy thickenings, principally horizontal and more or less in parallel rows. Surface with irregularly spaced curved setae. Wings absent. Legs short, unarmed, faintly reticulated.

Abdomen broad, somewhat flattened. Segments I-VIII with complete comb of blunt teeth on posterior margins. A row of large curved setae arise from tubercles set on a heavy, undulating chitinous band. The band extends across the segments posterior to the center (fig. 3). Anterior to it is a similar band without setae and a reticulated area extending in the center nearly to anterior margin. Tube short, blunt, faintly reticulated, and split dorsally. Setae on segment IX slender, slightly curved and blunt at tip (fig. 6). Ovipositor downcurved.

Measurements (in mm.) of female holotype: total body length .769; head, length .064, width at center of cheeks .076; pronotum, length at center .112, anterior width .096, posterior width .160; abdominal segment X, length .048, width at base .048. Antennal segments: I, .009; II, .028; III, .025; IV, .027; V, .028; VI, .035; VII, .007; VIII, .006; total length, .169.

Male.—Smaller than female. Ocelli wanting. Legs short, without armature. No claspers or terminal or dorsally enlarged setae. Pronotum much smoother than that of female.

Holotype female and male allotype carry the following data: 2100 ft., Big Bend National Park, Castolon, Texas, August 25, 1954, yellow flowers, R. M. Bohart. The description is based on an additional ten female and two male paratypes. Dr. Bohart also collected additional specimens at Sierra Blanca, Hudspeth County, Texas, August 27, 1954 on blue flowers of an unknown shrub. Three specimens are known also from New Mexico, taken on greasewood and on rabbit brush roots.

Again the fine spirit of cooperation among thysanopterists has made the preparation of this contribution a pleasure. Miss Kellie O'Neill, L. J. Stannard and E. S. Ross have kindly made specimens under their cognizance available for study. Dr. A. N. Tissot of the University of Florida states there are no *Kurtomathrips* in the Watson collection.

REFERENCES

- Bailey, S. F., 1957. Thrips of California. Part I: Suborder Terebrantia. Bull. Calif. Insect Survey 4(5):182-183, Pl. 20, fig. 28.
- Moulton, D., 1927. Thysanoptera—New Species and Notes. Bull. Brooklyn Ent. Soc. 22(4):187-190, Pl. XI, fig. 1.